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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

O HERN, BRENT T

ART UNIT PAPER NUMBER

1772

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/506,993

Applicant(s)

NUN ET AL.

Examiner

Brent T. O'Hern

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-16 is/are rejected.
- 7) ☒ Claim(s) 11-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/27/06, 2/21/06</u> . | 6) <input checked="" type="checkbox"/> Other: <u>IDS 3/9/05, 12/6/04, 9/9/04</u> . |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group II, claims 11-16 in the reply filed on 20 July 2006 is acknowledged. The traversal is on the ground(s) that the Examiner has failed to show that another process can be used to make the claimed molding and there is no serious burden to search all of the claims. This is not found persuasive because the inventions do not relate to a single general inventive concept for the reasons stated in the previous office action dated 20 June 2006. Furthermore, claim 11 is anticipated by US 6,783,807, thus the claims lack the same technical feature.

The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

2. Claims 11-16 are objected to because of the following informalities: claims 11-16 depend on a nonelected process claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 11-14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Huffer et al. (US 6,783,807).

Regarding claim 11, Huffer ('807) teaches a molding wherein the molding has at least one surface having self-cleaning properties (*col. 3, ll. 53-55, col. 6, ll. 1-7, col. 4, ll. 20-22 and col. 9, ll. 57-61*) and surface structures with elevations (*col. 3, ll. 65-66*).

Regarding claim 12, Huffer ('807) teaches a molding wherein the elevations have an average height of from 20 nm to 25 μm (*col. 3, ll. 65-66*) and an average separation of from 20 nm to 25 μm (*col. 3, ll. 66-67*).

Regarding claim 13, Huffer ('807) teaches a molding wherein the elevations have an average height of from 50 nm to 4 μm (*col. 3, ll. 65-66*) and/or an average separation of from 50 nm to 4 μm (*col. 3, ll. 66-67*).

Regarding claim 14, Huffer ('807) teaches a molding wherein the molding comprises microparticles and the microparticles are selected from the group consisting particles of silicates, minerals, metal oxides, metal powders, silicas, and mixtures thereof (*col. 4, ll. 6-12*).

Regarding claim 16, Huffer ('807) teaches a molding wherein the molding is a three-dimensional article selected from the group consisting of vessels, bottles, storage vessels, drums, measuring beakers, tanks and discharge aids (*col. 8, ll. 30-40*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huffer et al. (US 6,783,807) in view of Baumann et al. (US 6,800,354).

Huffer ('807) teaches the product discussed above, however, fails to expressly disclose wherein the product comprises impressed particles and the impressed particles are anchored with from 10 to 90% of their average particle diameter within the surface of the product.

However, Baumann (354) teaches self-cleaning particles on a substrate with a height of 0.5 to 15 μm (*col. 5, ll. 13-17*) which are anchored (*col. 4, ll. 23-27, embedded, thus anchored*), forming a layer with thickness of 5-1,000 nm (*col. 8, ll. 29-39*), which would obviously be anchored by at least 10% of the particle diameter for the purpose of providing a self-cleaning article (*col. 2, ll. 66-67*).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to modify Huffer's ('807) structure with a self-cleaning surface wherein the particles are embedded by at least 10% of their diameter as taught by Baumann (354) in order to provide an article with a self-cleaning surface.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571) 272-0496. The examiner can normally be reached on M-F, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (571) 272-2172. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1772

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Brent T O'Hern
Examiner
Art Unit 1772
August 14, 2006


NASSER AHMAD
PRIMARY EXAMINER
8/15/06